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# FOCUSED SITE INSPECTION PRIORITIZATION SITE EVALUATION REPORT

TREKKER CHEMICAL COMPANY
SOUTH ROUTE 51
MENDOTA, ILLINOIS

CERCLIS ID NO.: ILD065241267

## Prepared for:

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY SITE ASSESSMENT SECTION

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# TABLE OF CONTENTS

Section		<u>Page</u>
1	INTRODUCTION	1-1
2	SITE DESCRIPTION AND HISTORY	2-1
3	PREVIOUS INVESTIGATIONS	3-1
4	MIGRATION AND EXPOSURE PATHWAYS  4.1 GROUNDWATER MIGRATION PATHWAY  4.1.1 Geology and Soils  4.1.2 Groundwater Releases  4.1.3 Targets  4.2 SURFACE WATER MIGRATION PATHWAY  4.3 SOIL EXPOSURE PATHWAY	4-1 4-1 4-1 4-2 4-2 4-3 4-4
	4.4 AIR MIGRATION PATHWAY	4-4
5	SUMMARY	5-1
6	REFERENCES	6-1

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# **Appendix**

A	SSI SAMPLE ANALYTICAL DATA	 <b>A</b> -
В	REFERENCE DOCUMENTATION .	 B-1

## LIST OF ILLUSTRATIONS

<u>Figure</u>			
2-1	Site Location Map	2-5	
2-2	Site Features Map	2-6	

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#### 1. INTRODUCTION

The Ecology and Environment, Inc., (E & E) Technical Assistance Team (TAT) was assigned by the United States Environmental Protection Agency (U.S. EPA), under Contract No. 68-W0-0037, Technical Direction Document (TDD) No. T05-9503-242, to evaluate the Trekker Chemical Company site in Mendota, LaSalle County, Illinois, as a potential candidate for the National Priorities List (NPL). E & E performed Focused Site Inspection Prioritization (FSIP) activities to determine whether, or to what extent, the site poses a threat to human health and the environment, and has prepared this FSIP report. The report presents the results of E & E's evaluation and summarizes the site conditions and targets pertinent to the migration and exposure pathways associated with the site. Background information was obtained from the E & E Field Investigation Team (FIT) Screening Site Inspection (SSI) Report, Preliminary Assessment (PA) Form (U.S. EPA Form T2070-2), and miscellaneous materials from the Illinois Environmental Protection Agency (IEPA) and U.S. EPA files.

This report is organized into six sections, including this introduction. Section 2 describes the site and provides a brief site history. Section 3 provides information about previous investigations conducted at the site. Section 4 provides information about the four migration and exposure pathways (groundwater migration, surface water migration, soil exposure, and air migration). Section 5 summarizes site conditions. References used in the preparation of this report are listed in Section 6.

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#### 2. SITE DESCRIPTION AND HISTORY

The Trekker Chemical Company site is located at Illinois Route 51 South, Mendota, LaSalle County, Illinois (SE1/4 SE1/4 sec. 8, T. 35 N., R. 11 E.). The coordinates for the site are at latitude 41°31'03" North and longitude 89°81'10" West (E & E 1991). See Figure 2-1 for site location. The 6-acre tract contains Trekker Chemical Company, an inactive pesticide manufacturing company on the southern part of the site, and an abandoned lot owned by Amoco Oil Company (Amoco) on the north part of the site. The exact boundary between the Trekker Chemical Company and the Amoco Oil Company properties is not known, but it is estimated that the Trekker site comprises approximately 4.1 acres, and the Amoco site approximately 1.9 acres. The site is located in an agricultural area approximately 1.5 miles south of the city of Mendota, Illinois. There are no residences located within 0.25 mile of the site. The southern border of the site is formed by 40th Road. The eastern border of the site is formed by a drainage ditch, which separates the site from an inactive trucking company located on the adjoining property. The western border of the site is formed by another drainage ditch, which separates the site from a pesticide manufacturer located west of the Trekker Chemical Company facility. The northwest border of the site is formed by the LaSalle and Bureau County Railroad tracks, which run from the west side of the site to the northeast corner of the site (E & E 1991). See Figure 2-2 for site features.

The Trekker Chemical Company facility, which is an inactive pesticide manufacturing plant, was constructed in 1966. At that time, the facility and surrounding property were owned by Helena Chemical Company and Amoco Oil Company. In 1970, Amoco Oil Company obtained full ownership of the property. In 1983, Crop-mate Corporation purchased all but the portion of the property on the northern side of the site, which was retained by Amoco Oil Company. In 1985, United Agri Products purchased the property

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from Crop-mate Corporation and currently retains ownership. This piece of property is an unused open lot. United Agri Products is the parent company of Trekker Chemical Company, which until 1990, operated on the site. Operations on the site ceased in 1990. United Agri Products has repeatedly declined offers from Amoco Oil Company to purchase the remaining piece of property because of concerns over former drum burials in the northern part of the site. Land use on the property prior to 1966 is unknown (E & E 1991).

During its operation at the site from 1966 to 1990, Trekker Chemical Company formulated mixtures of pesticides, herbicides, and fertilizers using dry and liquid blending operations. During that time, there was only one structure on the site, a metal building used as an office and processing plant with a concrete loading dock on the east side, and a parking lot that extended from the east side around to the south side of the loading dock. The parking lot was enclosed by a chain-link fence that separated the lot from the open grassy area to the north. There was a gate between the loading dock and the parking lot on the south side of the building. A small storage facility that housed equipment for vehicle repairs was located near the southwest corner of the building.

The Pacific Railroad Company spur tracks, which were located on the west side of the building, were used to transport clay to the site. West of the railroad tracks was a tank farm area that stored liquid raw materials that were used during the Trekker Chemical Company's manufacturing process. Fourteen storage tanks were arranged in two rows in a north to south orientation. The tank farm was completely surrounded by a concrete wall approximately 1.5 feet in height. It is believed that the tank farm did not have a concrete floor.

North of the tank farm was an empty aboveground storage tank that formerly contained a liquid pesticide (phorate). North of the building were storage shacks, storage tanks, and an elevator used to carry materials to the filters for the separation of wastes. The storage tanks contained dry finished products. The site was partially fenced and during its existence, the Trekker Chemical Company operated 24 hours per day, Monday through Friday. On the weekends, security guards provided site supervision 24 hours per day (E & E 1991).

Surface runoff from the site discharges via the drainage ditches along the east and west sides of the site and then flows into another drainage ditch that runs along 40th Road on the south side of the site. The southern drainage ditch eventually flows under 40th Road and

into a field tile that transects the farmland directly south of the road and ultimately empties into Spring Creek approximately 0.25 mile southwest of the site. The site is relatively flat with a site slope of less than 3% and an average terrain slope of less than 3% (E & E 1991). There are no reports of any direct discharges of wastes into these drainage ditches.

Until their removal in approximately 1993, five monitoring wells were located on site. Monitoring well MW1 was located at the southeast corner of the facility, approximately 125 feet southeast of the corner of the building. Monitoring well MW2 was located at the northeast corner of the facility, approximately 100 feet east of the storage tanks on the north side of the building. Monitoring well MW3 was located at the northwest corner of the facility, approximately 25 feet west of the railroad tracks. Monitoring well MW4 was located west of the railroad tracks, approximately 350 feet south of MW3. Monitoring well MW5 was located at the southwestern corner of the site, approximately 160 feet southwest of the corner of the building (E & E 1991). These wells have since been removed (Miller 1995a).

On October 9, 1990, a fire began in a small production office of the office and processing plant building of the Trekker Chemical Company facility. The facility was extensively burned and all on-site production operations ceased. All usable equipment was transferred to another United Agri Products facility in Atlanta, Georgia. The only activity presently at the site is the ongoing groundwater sampling of a recovery well, which was installed at a depth of approximately 25 feet below ground surface (BGS) at the discretion of United Agri Products (Miller 1995a, 1995b). These groundwater samples are collected by Mr. Ken Miller, former plant foreman, who passes the groundwater through carbon cells, and then ships the filtered samples to OHM Materials of Findlay, Ohio, for analysis. Mr. Miller sends a Discharge Monitoring Report (DMR) to the U.S. EPA on a monthly basis. No excavation of soil or other remediation has been known to have taken place, nor are there any regulatory or enforcement actions involving the site (E & E 1991; Miller 1995a, 1995b). The cause of the fire has never been determined (Cunefare 1995).

The Trekker Chemical Company facility does not presently have Resource Conservation and Recovery Act (RCRA) or National Pollutant Discharge Elimination System (NPDES) permits.

The Trekker Chemical Company plant was divided into two departments, the Liquid Department and the Granular Department. Within the Liquid Department, raw materials (toxaphene, methoxychlor, and malathion) were obtained from Trekker Chemical

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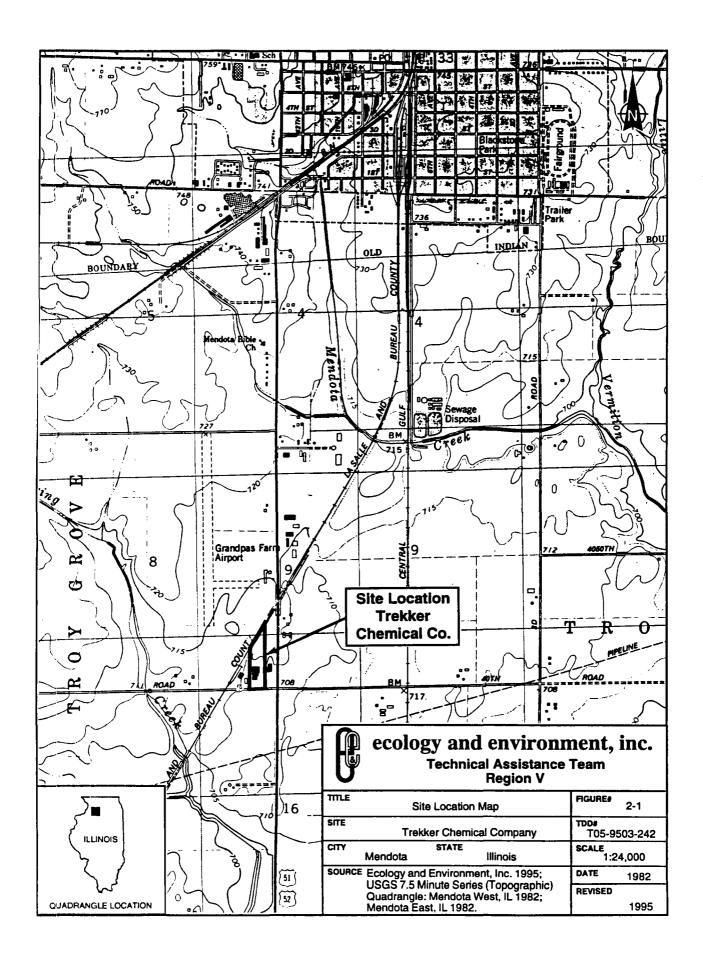
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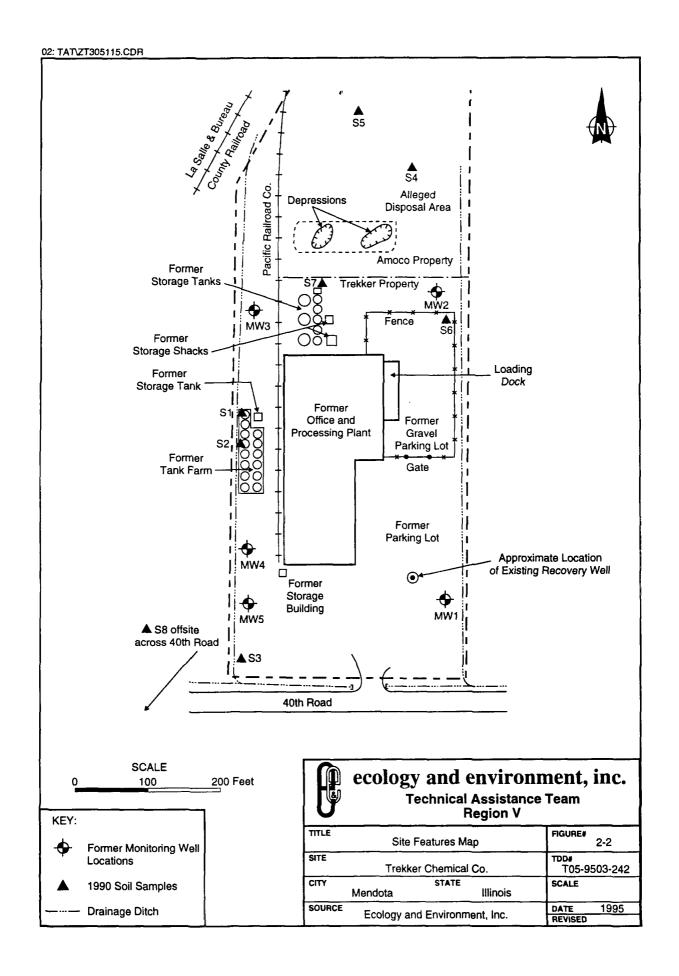
Company's suppliers at concentrations of approximately 90% purity. Received in drums, this material was distributed to three mixing vats located within the department. Toxaphene, an insecticide, was blended with crop oil (probably kerosene) to reduce the initial raw concentration of 90% to a 25% concentration level. Malathion, an insecticide and acaricide, was blended and brought down to a desirable concentration. At least two types of detergents believed to be used to emulsify these materials were included within the blending period. Micro-nutrients, a fertilizer, was also blended within one of the mixing vats. With the exception of the micro-nutrient vat, the vats were not closed systems. All of the vats were used interchangeably and cleaned prior to the blending of a different chemical.

Following the blending period, the vats were pumped to stainless steel filler tanks for storage.

The Granular Department contracted out to various companies to formulate mixtures of phorate, trifluralin, and benefin. Phorate, an insecticide and acaricide, was received by the facility in metal drums as a liquid. Trifluralin and benefin, both herbicides, were received in fibrous drums in a crystal form. The trifluralin and benefin were then transferred to the Liquid Department where they were melted down using Panasol, an organic solvent, in one of the mixing vats. This material was then transferred back to the Granular Department as a liquid.

Clay from the state of Georgia was received at the facility via railroad cars. The clay was stored within a number of bins located outside of the plant. When needed, the clay was transferred from the bins to an enclosed blender inside the plant. As the blender rotated, a set of nozzles connected to the blender sprayed the clay particles inside to blend with either of the previous mentioned chemicals from the Granular Department. After the clay had been sprayed, the material proceeded to a shaker, which separated unwanted dust and large-sized clay particles. The material was then sent (elevated) to a hopper where it was bagged. The dust and large-sized clay particles, considered a hazardous waste, were drummed and hauled off-site to a licensed landfill for disposal (E & E 1981).





### 3. PREVIOUS INVESTIGATIONS

In 1978, IEPA received citizen complaints claiming that foul odors were being emitted from the Trekker Chemical Company facility. An investigation was conducted, and the odors were traced to the pesticide phorate. Later in 1978, an air purifier was installed by the company to control the odors. However, citizen complaints concerning the odors were received by IEPA through 1981. Trekker Chemical Company was issued an IEPA permit to allow for controlled organic emissions on June 6, 1986. The permit (Identification No. 099832AAI) had an expiration date of June 3, 1991.

In 1981, Amoco Oil Company notified the U.S. EPA, through Hazardous Waste Site Form 103(c), of the possibility of buried drums on their property. The drums were allegedly buried by an unidentified former owner. In January 1984, Amoco Oil Company conducted a soil penetration survey, which indicated the possible presence of buried drums on site. Following an on-site inspection on April 18, 1984, IEPA required Amoco Oil Company to perform soil borings in the area and to analyze the samples for pesticides. Soil analysis indicated the presence of chlordane, aldrin, and heptachlor.

In 1981, U.S. EPA tasked E & E FIT to conduct a Site Investigation (SI) of the Trekker Chemical Company site to determine whether hazardous waste was migrating from the site. On May 14, 1981, an on-site inspection was performed at the Trekker Chemical Company site by E & E FIT. Based upon observations and conversations with the IEPA, E & E FIT personnel collected two samples, one each from the two sump pits located in the basement beneath the pesticide mixing vats. Methylene chloride and bis(2-ethylhexyl)phthalate were detected in the samples (E & E 1991).

In April 1984, Amoco Oil Company hired Petro-Chem Services, Inc., to excavate the drum burial area. Approximately 200 drums were excavated and were found to be empty and

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severely corroded. Water from the excavation trench was pumped into aboveground holding tanks. The water was then processed through a carbon filtration system prior to being discharged into aboveground pools. The water was than used during the reseeding of the excavation area. The excavated soil was removed and transported to an unknown destination off site.

At the request of IEPA, Petro-Chem Services, Inc., installed six monitoring wells around the perimeter of the excavated area in 1984. Results of water samples collected from the monitoring wells revealed the presence of aldrin, heptachlor, and chlordane. All attempts by E & E FIT to contact Amoco Oil Company to obtain additional information were unsuccessful (E & E 1991).

The Illinois Department of Public Health (IDPH) issued a drinking water alert for the area around the Trekker Chemical Company site on April 5, 1984, pending the results of onsite monitoring well and residential well sampling. Bottled water was provided to residents during this time. Various public agencies sampled residential wells in the area. The samples did not reveal the presence of pesticides, and the ban on drinking water was subsequently lifted.

In September 1984, IEPA determined that the site had been satisfactorily cleaned, and required the monitoring of groundwater for the period between January 1985 and January 1987. The samples were to be collected quarterly. Petro-Chem Services, Inc., was retained to collect the quarterly samples. There is currently no monitoring program in existence on the Amoco Oil Company site. The last on-site inspection by IEPA was conducted in 1986.

In 1985, Trekker Chemical Company installed five monitoring wells around the perimeter of the property that is now owned by United Agri Products. The wells were installed by Rapps and Associates of Springfield, Illinois. The wells were installed because of concerns about the Amoco Oil Company property and the recent cleanup of their drum disposal area. Samples collected from the wells immediately following their installation did not reveal the presence of Target Compound List (TCL) compounds. These wells were not sampled on a regular basis.

Currently, there are no monitoring wells surrounding the former drum disposal area, which remains under Amoco Oil Company ownership. The circumstances of their removal are unknown. All attempts by E & E FIT to contact Amoco Oil Company to obtain further

information were unsuccessful. There have been no regulatory or enforcement actions implemented on the site (Miller 1995a).

During the fire at the Trekker Chemical Company plant in October 1990, local health officials evacuated residences south of the facility while the fire burned. The residences were scanned with air monitoring equipment to check for the presence of pesticides. Pesticides were not detected in the houses during the air monitoring activity. After the fire, OHM Materials of Findlay, Ohio, was contracted to collect samples from on-site monitoring wells every two weeks and screen the samples for elevated pesticide levels. The results of this sampling program are unknown. In approximately 1993, these five monitoring wells were removed by Rapps and Associates. Presently, there is one recovery well on site which continues to be sampled (Miller 1995a). The recovery well is located approximately 50 yards north of the south side of the site in the center of the former parking lot (see Figure 2-2). It is not believed that any excavation of soil or other remediation efforts have occurred (E & E 1991).

According to the IEPA, the Trekker Chemical Company site has not had a history of past violations (E & E 1981), though several spills by the plant have been recorded. The U.S. EPA had reported that around 1979, it was learned that the Trekker Chemical Company facility spilled roughly 50 gallons of oil that may have contaminated Spring Creek (E & E 1981). No more is known about this alleged spill. Around 1979, another spill recorded by the IEPA occurred when apparently a quantity of trifuralin eventually migrated into Spring Creek via a drainage ditch. Trekker Chemical Company contended that this material was not trifluralin, but just raw clay which was blown off of the property during unloading operations due to high winds (E & E 1981).

The most recent spill was an oil spill that occurred during the spring of 1981. This spill, however, may not have been caused by the Trekker Chemical Company but possibly by the pesticide company located directly west of the site (E & E 1991).

On March 6, 1990, E & E FIT performed an SSI of the Trekker Chemical Company site (E & E 1991). The SSI consisted of a site representative interview, a site reconnaissance inspection (during which time sample locations were selected), and a subsequent sampling effort. In all, eight soil samples, five monitoring well samples, and four residential well samples were collected. Results of the sample analysis will be addressed in Section 4. See Appendix A for analytical data.

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## 4. MIGRATION AND EXPOSURE PATHWAYS

This section describes the four migration and exposure pathways associated with the Trekker Chemical Company site. Section 4.1 discusses the groundwater migration pathway; Section 4.2 discusses the surface water migration pathway; Section 4.3 discusses the soil exposure pathway; and Section 4.4 discusses the air migration pathway.

### 4.1 GROUNDWATER MIGRATION PATHWAY

This section discusses site geology and soils, groundwater releases, and targets associated with the groundwater migration pathway at the site.

## 4.1.1 Geology and Soils

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The Trekker Chemical Company site is located in the Bloomington Ridged Plain, which is characterized by low, broad, moraine ridges with intervening stretches of wide, relatively flat, or gently undulating ground moraines. The ground moraines are comprised of glacial till. This glacial till, having a high clay content and a moderately fine-textured nature, ranges in thickness from 50 feet or less to over 500 feet in LaSalle County (E & E 1991).

The site is underlain by glacial deposits consisting of clay layers ranging in thickness from 5 to 80 feet and discontinuous sand, gravel, and clay lenses ranging in thickness from 5 to 30 feet. These glacial deposits are underlain by Ordovician Age shale and limestone bedrock. Sandstone underlies the shale and limestone (Willman 1967). The depth to bedrock in the vicinity of the site ranges from 65 to 130 feet BGS (E & E 1991). It is possible that fractures may exist in the clay layers, allowing migration of contaminants into the groundwater (E & E 1991).

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Area well logs indicate that private wells in the area of the site draw water from the sand and gravel lenses and from the limestone bedrock, which appear to be hydraulically connected. The city of Mendota's municipal well system draws its water from the deeper sandstone bedrock. These three water-bearing zones together comprise the aquifer under investigation. The depth to groundwater on site was measured to be 2.9 feet BGS (E & E 1991), and using documented water depths of on-site monitoring wells, it is believed that groundwater beneath the site flows in a southeasterly direction.

### 4.1.2 Groundwater Releases

A release of hazardous substances from the Trekker Chemical Company site to groundwater has been documented. TCL compounds and Target Analyte List (TAL) analytes have been detected in on-site monitoring well samples and TAL analytes were detected in residential well samples. Dieldrin, aldrin, heptachlor, and heptachlor epoxide (pesticides) were detected in on site-soil samples and on-site monitoring well samples; however, these substances cannot be conclusively attributed to the Trekker Chemical Company site (E & E 1991). Other pesticide and fertilizer plants have operated directly west of the site throughout Trekker Chemical Company's operation (E & E 1991), and there was a documented release of these same substances in the area located directly north of the site currently under Amoco Oil Company ownership. The TAL analytes detected in off-site residential wells include arsenic, chromium, iron, manganese, and zinc. Of these substances only arsenic, iron, and manganese were detected in on-site monitoring well samples and can be possibly attributed to the site. There has been no evidence of on-site hazardous waste disposal or mismanagement during the existence of the Trekker Chemical Company facility.

The potential still exists for TCL compounds to migrate from the site area to groundwater. The site did not have engineered controls such as liners under the waste and raw material storage areas, and some pesticides that were manufactured at the site were liquids. Because it is possible that fractures exist in the clay layers underlying the site, the potential for vertical migration of contaminants to groundwater exists.

## 4.1.3 Targets

The potential targets of groundwater contamination include the approximately 7,800 persons who draw groundwater from wells located within a 4-mile radius of the site. This

population includes approximately 600 private well users who obtain their drinking water from the aquifer under investigation, the closest of which is located approximately 0.25 mile west of the site. The population also includes the city of Mendota's municipal water system, which uses five wells and serves approximately 7,200 people. These five wells are located approximately 3.25 miles north of the site and range in depth from 500 feet BGS to 1,400 feet BGS. It is unlikely that these municipal wells have been impacted by the site due to both their distance from the site and their depths. However, because there does not appear to be a specific confining layer separating the deeper aquifer from the shallow aquifer, they must be assumed to be hydraulically connected and therefore included in the aquifer under investigation.

#### 4.2 SURFACE WATER MIGRATION PATHWAY

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Spring Creek, the body of surface water nearest to the Trekker Chemical Company site, is located approximately 0.25 mile southwest of the site. Spring Creek flows south approximately 15 miles where it empties into the Illinois River. No known wetlands, sensitive environments, or drinking water intakes are known to exist along this surface water pathway (USGS 1966a, 1966b, 1966c, 1982a, 1982b).

The portion of Spring Creek located nearest the site is possibly used for fishing by a small population of people in the area (Garrity 1995; Clodfelter 1995). During the SSI, E & E FIT observed a potential migration route from the site to Spring Creek. Drainage ditches along the west and east sides of the site drain into a drainage ditch that runs along the south side of the site. This southern ditch then flows under 40th Road and enters a field tile, which continues to flow in a southwesterly direction across agricultural land and eventually into Spring Creek, approximately 0.25 mile from the site. No diversion system or other engineered controls exists on site to prevent any runoff from entering these drainage ditches. Since TCL and TAL chemicals were detected in on-site soil samples, including samples collected from the junction of the drainage ditches on the southwest side of the site, the potential for contaminant migration to Spring Creek exists. The site is not believed to be in a floodplain.

## 4.3 SOIL EXPOSURE PATHWAY

According to available file information, no incidents of direct contact with TCL or TAL chemicals at the Trekker Chemical Company site have been documented. A potential does exist for unauthorized site users to come into contact with TCL and TAL chemicals at the site because these substances were detected in on-site surface soil samples. During the facility's operation, the site was only partially fenced, and 40 workers were employed at the site (E & E 1991). Presently, the site is inactive and completely fenced and consists of one shack used by one employee involved with on-going groundwater sampling activities. The employee is on site approximately 25 hours per month (Miller 1995a).

A population of approximately 85 persons within a 1-mile radius of the site is potentially affected through direct contact with TCL and TAL chemicals at the site. There are no residences, schools, or daycare facilities within 200 feet of the site, nor are there any known sensitive environments located near the site (E & E 1991; USGS 1982a).

### **4.4 AIR MIGRATION PATHWAY**

A release of hazardous substances to air has never been analytically documented at the Trekker Chemical Company site. However, in 1978, IEPA received citizen complaints claiming that foul odors were emanating from the facility. An investigation was conducted, and the odors were traced to the pesticide phorate. Later in 1978, an air purifier was installed by the company to curtail the odors, and by 1981, citizen complaints regarding facility-generated odors had ceased (E & E 1991). In 1986, the facility was issued an IEPA air emissions permit for controlled organic emissions, which remained in effect until the plant ended its operations in October 1990. There is one employee currently working at the site, and the population within a 4-mile radius potentially affected by an air release is approximately 7,800 persons (Rand McNally 1994). No wetlands or sensitive environments exist near the site (E & E 1991; USGS 1966a, 1966c, 1982a, 1982b).

## 5. SUMMARY

E & E has evaluated the Trekker Chemical Company site using the existing U.S. EPA file information and through data research, where necessary. The Trekker Chemical Company plant has been inactive since October 9, 1990, when a fire destroyed the facility. Beginning in 1966, the facility operated as a pesticide manufacturing company. Land use on the site prior to 1966 is unknown. See Section 2 for site history.

The Trekker Chemical Company site has had numerous incidents throughout its operation. Several spills have been reported, and the site was extensively investigated for possible air pollution violations. In 1981, U.S. EPA tasked E & E to conduct an investigation of the Trekker Chemical Company facility to determine whether hazardous wastes were migrating from the site. On May 1, 1981, E & E collected two samples from the two sump pits located in the basement beneath the pesticide mixing vats. No site-related contaminants were detected in these samples.

In January 1984, Amoco Oil Company conducted a soil penetration survey indicating the possible presence of buried drums. In April of that year, IEPA required Amoco Oil Company to perform soil borings of the area and to analyze the samples for pesticides. These samples revealed the presence of chlordane, aldrin, and heptachlor.

During this same time, Amoco Oil Company hired Petro-Chem Services, Inc., to excavate the drum burial area. Approximately 200 drums were excavated and found to be empty and severely corroded. At the request of IEPA, Petro-Chem Services, Inc., installed six monitoring wells around the perimeter of the excavated area. Results of groundwater samples collected from these monitoring wells revealed the presence of aldrin, heptachlor, and chlordane.

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In September 1984, IEPA determined that the site had been satisfactorily cleaned, and required the quarterly sampling of groundwater for the period between January 1985 and January 1987. There is currently no monitoring program in effect on the Amoco Oil Company site. There are currently no regulatory or enforcement actions involving the site.

In 1985, Trekker Chemical Company decided to install five monitoring wells around the perimeter of the property, which is owned by United Agri Products, because of concerns about the close proximity to the Amoco site drum disposal area. Samples collected from the wells following their installation did not reveal the presence of TCL compounds.

On March 6, 1990, E & E FIT conducted an SSI of the Trekker Chemical site. During the inspection, a site representative interview was conducted and eight soil, five monitoring well, and four residential well samples were collected. Analytical results of these samples indicated the presence of dieldrin, aldrin, heptachlor, and heptachlor epoxide in onsite soil samples and in groundwater samples collected from on-site monitoring wells. TAL analytes were detected in the residential well samples.

The potential for TCL compounds and TAL analytes to migrate to groundwater is affected by the geology of the area of the site. Fractures in the clay layers could allow vertical migration of contaminants into the groundwater. Private wells in the area of the site draw water from the upper sand and gravel aquifer and the underlying limestone bedrock aquifer. These aquifers, along with a lower lying sandstone aquifer, appear to be hydraulically connected and together comprise the aquifer under investigation. The potential targets of groundwater contamination include the approximately 7,800 persons who live within a 4-mile radius of the site and who are drawing drinking water from the aquifer under investigation.

The potential target for surface water migration is Spring Creek, which at its closest point to the site, is 0.25 mile southwest. Spring Creek is believed to be used recreationally for fishing purposes. IEPA and U.S. EPA have reported spills in the past, which they believed to have impacted the creek, but no information has been found to confirm this. Drainage ditches from the site flow south to an off-site drainage ditch, which flows underneath 40th Road and into a drainage tile which eventually flows into Spring Creek. There is no diversion system on site to prevent surface water runoff from entering these ditches. The site is not believed to be in a floodplain.

Because of the distance to Spring Creek and the nature of the surface water migration route, impact on the creek by the Trekker Chemical Company site is unlikely.

Presently, the site is completely fenced, preventing access by the general public. The population within a 1-mile radius of the site potentially affected through direct contact with TCL and TAL chemicals present at the Trekker Chemical Company site is approximately 85 people. There are no residences, schools, or daycare facilities within 200 feet of the site, nor are there any known sensitive environments located near the site.

A release of hazardous substances to air has never been analytically documented at the Trekker Chemical Company site. During its operation, the facility possessed an air emissions permit for organic emissions, and an air purifier. The facility is presently inactive, and there is only one employee working at the site. The population within a 4-mile radius of the site that could be potential targets of an air release is approximately 7,800 persons. No wetlands or sensitive environments are located near the site.

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### 6. REFERENCES

References not included in Appendix B: documents that are currently available within U.S. EPA files; copyrighted documents that are currently available in E & E's library; maps produced by either the United States Geologic Survey or the Illinois State Geologic Survey; and documents that are created by the various state agencies for public use.

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Willman, H.B., 1967, Geologic Map of Illinois, Illinois State Geological Survey, Urbana, Illinois.

# APPENDIX A

# SSI SAMPLE ANALYTICAL RESULTS

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Table 4-1
RESULTS OF CHEMICAL ANALYSIS OF FIT-COLLECTED SOIL SAMPLES

Sample Collection Information	·		<b>* .4</b> \	Ar Sample	e Humber Ar.		-5-	lhg.
and Parameters	SI	\$2	53 1 4.l.	54 72	\$5	S6	\$7	58
Date	3/6/90	3/6/90	3/6/90	3/6/90	3/6/90	3/6/90	3/6/90	3/6/90
line	1330	1350	1415	1530	1540	1620	1630	1700
LP Organic Traffic Report Humber	EJR45	EJR46	EJR47	EJR48	EJR49	EJR50	EJR51	EJk52
LP Inorganic Traffic Report Number	HEHY06	HEHY07	MEHY08	MEHY09	MEHY 10	MEHY11	MEHY12	MEHY13
Compound Detected								
values in µg/kg)								
<u>olatile Organics</u>				$\bigcirc$				
hlorofors				(180		-		
emivolatile Organics								
is(2-ethylhexyl)phthalate			280J		(340J)	88J		
esticides/PCBs								
eptachlor		- <u>-</u> -	320J	690JC	2,100JC	31J	1,100JC	***
ldrin	2,300JD	3,200JC	2703	2,600JC	1,700JC	1003	450J	
eptachlor epoxide	·		(570JC)				260J	<del></del>
ieldrin	1,600JD	1,400JC	9,500JC	180J	1,900JC	180J	2,400JC	
,4'-DDD	220JXD		3201				*,*****	
,4'-DDT		-	710JC				3301	
ndrin ketone			2901	_		_	3303	
lpha Chlordane	240JXD		6201		360J	27.3	1,10030	
amma Chlordane	470JXD		2,500JC	<del>-</del> .	1,900JC	1503	(5,700JC)	
<u>ICs</u> †	~~							
chlardene	(1,0003)					-		
(3734483) hlordane	0.5441	6.00						
(57749)	3,500J	5,0001	3,000J		3,5003	4801	1,3001	_
	(F. 1417)	** ***						
ieldrin	(26,000J)	11,000J	9,400J	-	3,100J	-	6,3001	
(60571)	<u> </u>							
,,p-DDD	(2,700J							
(4329128)								
ldrin-R	(48,000J	14,0003	9403		2,000J			
(309002)								
rifluralin	<del></del>	*-	1,1001			<b>750J</b>	410J	
(1582098)								
horate	-					(2,100J)		
(298022)						`		
eptachlor					(2,300J)		5201	
(76448)					`-i			
eptachlor epoxide							420J	
(1024573)							1841	

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Table 4-1 (Cont.)

Sample Collection Information	•			Sample	e Hu <u>sber</u>			ltge
ind Parameters	S1	52	\$3	S4 72	\$5	\$6	<b>S7</b>	\$8
nalyte Detected				·		· · · · · · · · · · · · · · · · · · ·	···-	<del></del>
values in mg/kg)			10 100					
luminum	15,700	10,200	16,400	15,200	13,400	9,690	15,500	16,900
ntimony		11.7JHB		12.6JNB	15JNB	7.6JNB	-	8.6JNB
rsenic	1.4JNB	5.2JN	6.5JN	7.7JN	8.2JN	10.3JN	4.5JN	5.2JN
ər 1 u <b>s</b>	196	161	331	149	186	106	177	191
eryllium	0.81JB	0.49JB	1.6B	1.1JB	0.81JB	0.65JB	1.2B	0.94JB
admium	1.43		_2.7J	0.80JB	~ =	_ <del>_</del> =	1.0JB	1.3JB
alcium	7,120	66.400	(77,600)	5,730	(31,900)	30,200	10,100	7,250
nromium	19.1	21.5	47.9	19.1	16.5	16.7	23.5	19.9
obalt	10.68		_==	13.2	$\mathbf{02.D}$	8.2B	6.2B	8.08
opper	12.6	53	(18.4)	16.3	13.1	16.6	13	9.7
; on	18,000	13,100	22,000	22,700	20,300	21,700	18,400	17,700
ead	14.8JN	(259)	(2,100)	13.7JN	29JN	12.7JNW	9.4JN	16.3JN
agnesium	4,380	39.00T)	(2,100)	4,940	(19,200)	19,400	5,660	4,160
anganese	766	39,000 399	1,070	649	1,540	315	483	540
ickel	17.6	14.4	·	23	24.1	20.9	14.9	12.6
otassium	1,340	1,040B	4,720	557B	1,050B	917B	1,380	1,590
elenium		0.923WB	·	0.86JB	•	0.89JWB	1.18	0.84JWB
odium	52.1B	114B	1408	66.5B	1318	66.88	68.8B	60.3B
anadium	34.7	23,4	51.8_	36.1	36.9	30.1	33.3	39.2
inc	NEO01	(949JH)	1,430JN)	63.8JN	94.3JN	61.1JN	112JN	91.7JN

<sup>--</sup> Not detected.

Table 4-1 (Cont.)

COMPOUND QUALIFIERS

1	Indicates an estimated value.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides \$10 ng/µL in the final extract shall be confirmed by GC/MS.
D	This flag identifies all compounds identified in an aralysis at a secondary dilution factor.
X	Concentration reported exceeds the linear range of the pesticide standards.
ANALYTE QUALIFIERS	DEFINITION
H	Spike recoveries outside QC protocols, which indicater a possible matrix problem. Data may be blased high or low. See ≤pike results and laboratory narrative.
В	Value is real, but is above instrument DL and below CEDL.
1	Value is above CRDL and is an estimated value because of a QC protocol.
u	Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.

DEFINITION

### INTERPRETATION

Compound value may be semiquantitative.

Compound was confirmed by GC/MS and is quantitative. Use pesticide/PCB listed values.

Alerts data user to a possible change in the CROL. Data is quantitative.

#### INTERPRETATION

Value may be quantitative or semiquantitative.

Value may be quantitative or semiquantitative.

Value may be semiquantitative.

Value may be semiquantitative.

Table 4-2
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED MONITORING WELL SAMPLES

Sample Collection Information				Sample Numbe	<u>r</u>		
and Parameters	MV1	1642	Duplicate	MW3	HW4	HW5	Blank
Date	3/7/90	3/7/90	3/7/90	3/7/90	3/7/90	3/7/90	3/7/90
Time	1055	1120	1120	1215	1250	1320	0915
CLP Organic Traffic Report Number	EJR54	EJR55	EJR56	EJR57	EJR58	EJR59	EJR61
CLP Inorganic Traffic Report Number	MEHY15	MEHY16	MEHY17	MEHY18	MEHY19	WEHA50	MEHY22
Temperature (°C)	5	5	5	4	5	4	10
Specific Conductivity (µmhos/cm)	620	500	500	1,400	730	480	410
рН	7.40	7.46	7.46	7.21	7.11	5.94	7.49
Compound Delected							
(values in $\mu g/L$ )							
Volatile Organics							
methylene chloride	393		3.5		~-		
ethylbenzene	1,300				~-		
xylenes (total)	2,000				-		
Semivolatile Organics							
2,4-dimethylphenol	33						
naphthalene	53		·				
bis(2~ethylhexyl)phthalate			<b></b>	. · · · · ·	160		
Pant totilan/PCRa			•	1,			
gamma BHC (Lindane)					·	0.18JXD	
Heptachlor	0.13J		0.068	- '- ' <u>-</u>	0.14JXD	0.18JXD	-
Aldrin	0.65J		0.19	^/	2.0D	60D	
Haptachion whosids				7-	•	0.34.180	
Dieldrin	3.33	0.10	0.35		4.5D	I o D	
4,4'-DDT	0.0663						
Endrin betiene	0.0673	~-			1.7JXD	3.3JXD	
alpha Chiordane	0.12J	~-	~-	-~		0.43JXD	
gamma Chlordane	0.42J					2.1JXD	

Table 4-2 (Cont.)

Sample Collection Information				Sample Number	<u>t</u>		
and Parameters	HW1	MM2	Duplicate	HM3	MW4	NWS	Blank
TICe†				·			
atrasine	40-40		~~		113	9.13	
(1912249)							
Aldrin-R						<b>19</b> J	
(3090002)							
Dieldrin						173	
(60571)							
Analyte Detected							
(values in pg/L)							
Aluminum	624	1,510		283	1170	304	
antimony			41.1B	30.3B			~-
arsenic					6 3B		
barium	156B	78.18	62.98	94.38	1178	64.90	
beryllium		1.2JB	1.2JB	1.2ЈВ			
calcium	63,300	97,500	91,500	163,000	103,000	53,900J	14,600
iron	2,160JN	4,390 IN	36.3JNB	740JN	271JN	525JN	39.1JN
lead	2.2JWB	2.9B	1.1B			1.1JWB	
magnesium	40,300	44,100	41,100	69,200	44,700	25,700	6,760
manganese	361	76.4	30.7	122	143	1,010	
nickel	63.3	27.38			133	511	
potassium				13-400	56,200	46,900	
selenium		3.8JB	<del></del> ;				
sodium	17,100J	7,470J	7,2703	9 0503	8,020J	7,590J	20,300
zinc	·65,4J	117J	21.4J	62.33	49.2J	414	64.2
cyanide				ام الم	<b>&gt;</b> )	10.4	-

<sup>--</sup> Not detected.

<sup>†</sup> TIC Chemical Abstracts Service (CAS) numbers, if available, are provided in parentheses.

Table 4-2 (Cont.)

COMPOUND QUALIFIERS	DEFINITION	INTERPRETATION
J	Indicates an estimated value.	Compound value may be semiquantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL. Data is quantitative.
x	Concentration reported exceeds the linear range of the pesticide standards.	
ANALITE QUALIFIERS	DEFINITION	INTERPRETATION
N	Spike recoveries outside QC protocols, which indicates a possible matrix problem. Data may be biased high or low. See apike results and laboratory narrative.	Value may be quantitative or semi- quantitative.
ħ	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi- quantitative.
J	Value is above CRDL and is an estimated value because of a QC protocol.	Value may be semiquantitative.
W	Post-digestion spike for furnace AA analysis is nut of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semiquantitative.

Table 4-3
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED RESIDENTIAL WELL SAMPLES

Sample Collection Information			Samp	le Number		
and Parameters	RW1	RW2	Duplicate	RW3	RW4	Blank
Date .	3/8/90	3/8/90	3/8/90	3/8/90	3/8/90	3/8/90
Time	0915	1015	1015	0940	1045	0915
CRL Log Number	90PD10S38	90FD10S39	90FD10D39	90FD10S40	90FD10S41	90FD02R08
Temperature (°C)	10	9	9	10	10	11
Specific Conductivity (µmhos/cm)	410	500	500	480	510	170
рН	7.49	7.45	7.45	7.96	7.58	7.36
Compound Detected		•				
(values in $\mu g/L$ )						
Volatile Organics						
chloroform						1
Analyte Detected						
(values in µg/L)			•			
arsenic	3.8	2.9	2.2		18 1	
barium	84.8	75.4	73.7	107	74.3	
calcium	52,100	66,100	66,000	54,800	63,500	520
chronium ,		8.2	~ *			
copper	7.0		47.1	هر		28.3
ren	1,230	1,840	1,810	516	2,100	
magnesium	29,600	29,400	29,500	31 <sup>1</sup> , 100	33,300	
manganese	27.2	24	23.5	8.7	1 18.8	
sodium	27,100	18,300	18,300	34,500	🗢 ' 14, tòn	
zinc	69.2	40.4	` 70.1			
boron	285	168	191	249	119	
strontium	440	920	510	537	840	

-- Not detected.

# APPENDIX B

# REFERENCE DOCUMENTATION

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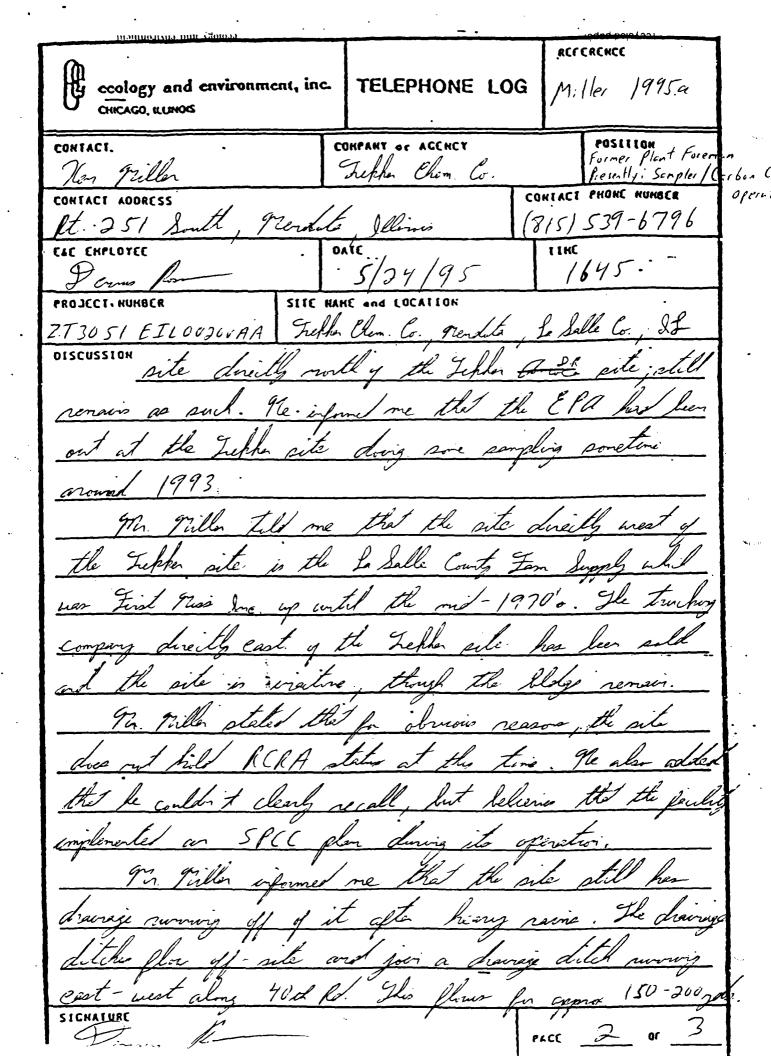
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